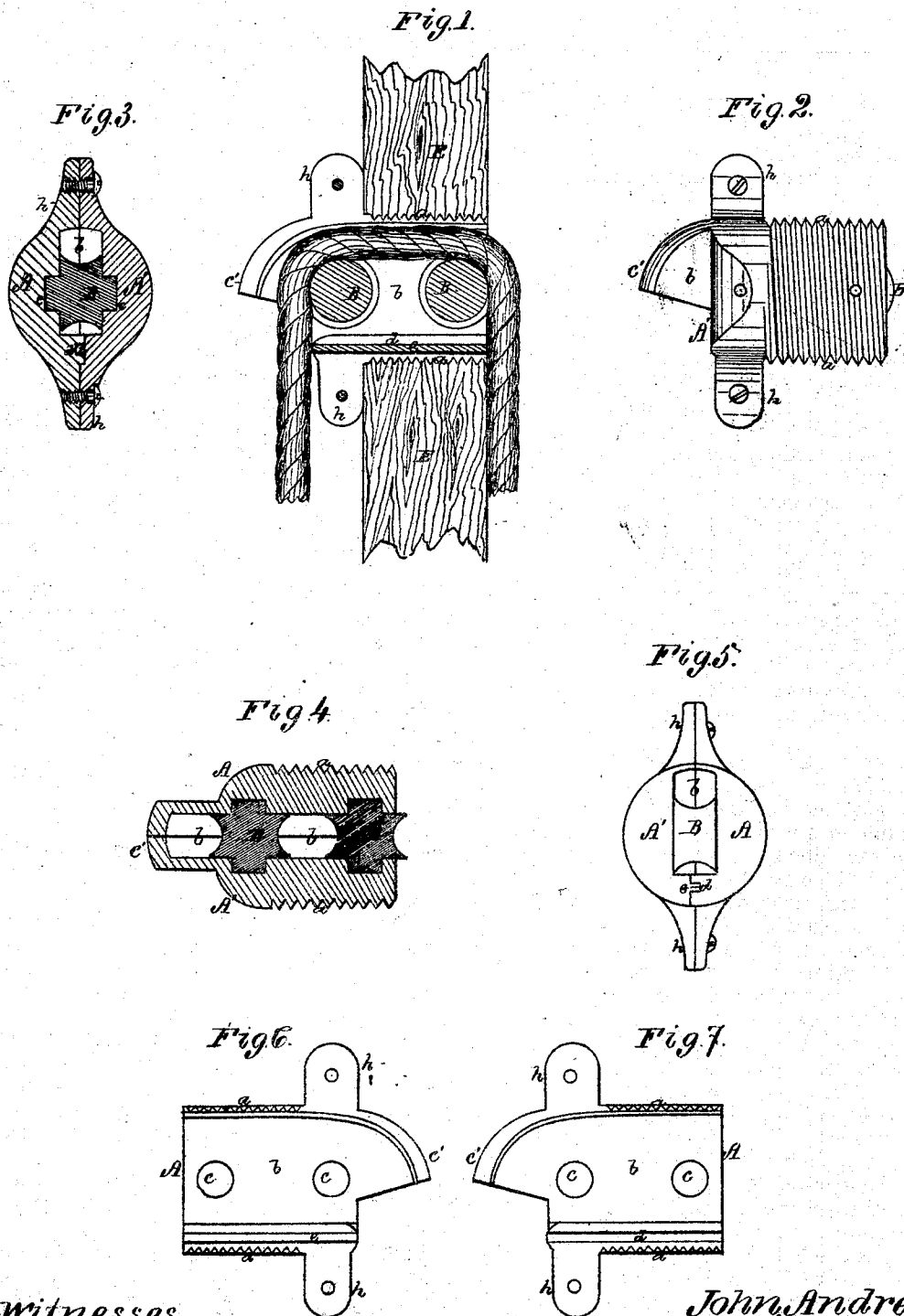


JOHN ANDREWS.
Improvement in Sash Pulleys.

No. 123,075.

Patented Jan. 30, 1872.



Witnesses

S. N. Piper
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by his attorney

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UNITED STATES PATENT OFFICE.

JOHN ANDREWS, OF MARLBOROUGH, MASSACHUSETTS.

IMPROVEMENT IN SASH-PULLEYS.

Specification forming part of Letters Patent No. 123,075, dated January 30, 1872.

To all persons to whom these presents may come :

Be it known that I, JOHN ANDREWS, of Marlborough, of the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Window-Sash Rope Pulleys; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawing, of which—

Figure 1 is a vertical section of one of my improved pulleys as fixed in that part of a window-frame designed for its reception. Fig. 2 is a side elevation; Fig. 3, a transverse section; Fig. 4, a horizontal section; Fig. 5, an end view of the said pulley. Figs. 6 and 7 are separate inner-side views of the chambered semi-screws constituting the stock of the pulley, which is to be cut or founded in two halves or parts, A A', each being semi-cylindrical, and provided on its external surface with the threads of a male-screw, as shown at *a*.

Each part A A', in its diametric side, is chambered or recessed, as shown at *b*, throughout its length, and is formed at its rear with a curved guide or guard, *c*, to extend over and direct the sash-line or cord down over and in contact with the rear one of the two grooved wheels B B arranged within such recesses *b b*, in manner as shown. There is disposed in each of the parts A A' cylindrical bearing-cavities *c c* to receive the journals of the grooved wheels, each of such wheels being cast in one piece with its two journals. Furthermore, there is formed in one of the parts A A' a groove, *d*, to receive a corresponding tongue, *e*, projecting from the other of the said parts, such groove and tongue being arranged in manner as shown. They serve to hold the two semi-screws in their normal positions with respect to each other, and prevent them from breaking their connections while they, the said semi-screws, may be in the act of being screwed into a window-frame. From each of the parts A A' two arms, *h h*, project, in manner as shown, they being provided with holes for reception of rivets or screws. When the two parts or chambered semi-screws A A' are put together so that the tongue of one may be within the groove of the other and the end of one part be coincident with that of the other, the arms of one part will rest against those of the other, in manner as shown, and those of

one are to be, or may be, confined to those of the other either by rivets or screws going through them. These arms, besides serving with the rivets to hold the two parts A A' in connection, answer as handles, to enable a person to screw with his fingers or hand or a suitable implement the combined parts A A' into a window-frame, the receiving part of which is shown at E in the drawing. The pulley-stock is to be screwed into such part E until the entering end of the stick may be flush with the outer face of the part E, such being the portion or a continuation thereof against which the sash usually rests or bears while in motion.

I am aware that a solid cylindrical block of glass, having a rope-passage extended through it and provided with a screw on its external surface, has been used as a sash-rope guide to a window, and I make no claim thereto.

For fitting the window-frame to receive my improved pulley-stock it will only be necessary to bore through it with a center-bit cylindrical hole of the proper diameter, after which the stock is to be screwed into such hole until estopped by the arms, the distance of which from the front end of the stock should be equal to the length of the hole in the window-frame.

I would remark that I am aware sash-rope pulleys have been made with the characteristics of mine, except in having the arms *h h*, whereby such pulleys can be screwed by the hand of a person into a window-frame. They have had appliances or holes in their ends for reception of a wrench; but without such implement they could not be screwed to advantage by the hand alone, as my sash-rope pulley can. Furthermore, there being two of the arms *h h* to each portion of the screw-case, they serve as means of connecting the said portions together by rivets, and therefore are useful means of connection.

I claim as my invention—

The arrangement and combination of the arms *h* and the two chambered semi-screws A A', provided with the guards *c* and the tongue *e*, and groove *d*, and the pulley-axle bearings *c*, all being constructed substantially as described.

Witnesses:

JOHN ANDREWS.

R. H. EDDY,
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